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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,561	08/08/2001	Jean Jianqun Zhao	8209M	3643

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EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,561

Applicant(s)

ZHAO ET AL.

Examiner

Elizabeth M Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. Claims 1-9, 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims merely setting forth physical characteristics desired in an article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart the desired characteristics. Thus, the instant limitations are too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and, in effect, recites compounds by what it is desired that they do rather than what they are; the expressions also are too broad since it appears to read upon materials that could not possibly be used to accomplish purposes intended. *Ex parte Slob (PO BdApp) 157 USPQ 172*. Thus, the instant claims do not recite specific polymeric compositions which would meet the claimed characteristics such as change in basis weight, tensile strength and tensile elongation, but merely recite the desired characteristics.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Timmermann et al, U.S. Patent No. 5,644,020.

Timmermann et al discloses a polyesteramide which is biodegradable. See abstract. The polyesteramide made comprise proportions of ester of between 35 and 80 wt%, see col. 3, lines 57-60. The polyesteramide may have a melting point of greater than 75 degrees C, see col. 4, line 2 and the examples show melting points of about 120 to 153 degrees C. The polyesteramide may be formed into laminates, see col. 4, line 65. The polyesteramide may comprise organic or inorganic fillers in an amount of 0-50% by weight and may further include UV stabilizers, lubricants, etc. See col. 4, lines 22-32. Timmermann et al does not disclose the claimed properties of an increase in basis weight of at least about 10% and a decrease in tensile elongation of at least about 30% after being immersed in an active anaerobic sludge medium for 28 days and of being resistant to mold growth. However, since Timmermann et al discloses the same material as claimed, presumably it would inherently possess the claimed properties.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Timmermann et al as applied to claims 1-7, 9-10 above, and further in view of Warzelhan et al, U.S. Patent No. 6,353,084. Timmermann et al teaches incorporating inorganic fillers, but does not specifically list those claimed. Warzelhan et al teaches fillers including fillers such as calcium carbonate, and titanium dioxide into biodegradable polyesteramides. See col. 13, lines 1-14. It would have been

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obvious to have employed the fillers disclosed by Warzelhan in the laminate of Timmermann et al. One of ordinary skill in the art would have been motivated to employ the particular filler disclosed by Warzelhan et al because they are disclose as being suitable for use as fillers in biodegradable polyesteramides.

6. Claims 11-14, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 96/31561, (equivalent to U.S. Patent No. 6,096,809 to Lorcks et al). Lorcks et al discloses a polymer mixture comprising a biodegradable polymer such as an aliphatic polyester, (col. 2, lines 10-12), including polyhydroxyalkanoates, (see col. 3, lines 30-45) and thermoplastic starch, which corresponds to the water-responsive polymer. The mixture may comprise 10-90% by weight of the thermoplastic starch. See col. 4, lines 7-12. The material may be formed into a variety of articles including diaper backsheets. See col. 11, lines 52-67. Lorcks et al does not disclose that the mixture has the claimed properties, however, since Lorcks et al discloses the same materials, presumably they would inherently possess the claimed properties.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorcks et al in view of Keyes et al, U.S. Patent No. 4,830,187.

Lorcks et al does not disclose forming the material into a portion of a tampon. Keyes et al teaches at col. 1, lines 10-23 that the same materials which are suitable for use as degradable diaper materials can also be employed to form tampons. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the material

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disclosed by Lorcks et al into a tampon since the Lorcks et al material is disclosed as being degradable and suitable for use in diapers, and because Keyes teaches that such materials can be used in both diapers and tampons.

8. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorcks as applied to claims 1-14, 17 above, and further in view of Warzelhan et al, U.S. Patent No. 6,353,084.

Lorcks does not disclose the particular fillers claimed. Warzelhan et al teaches fillers including fillers such as calcium carbonate, and titanium dioxide into biodegradable polymers. See col. 13, lines 1-14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the fillers disclosed by Warzelhan et al in the mixture of Lorcks. One of ordinary skill in the art would have been motivated to employ the particular filler disclosed by Warzelhan et al because they are disclosed as being suitable for use as fillers in biodegradable polymers.

9. Applicant's arguments filed 6/12/03 have been fully considered but they are not persuasive. With regard to the 112 2nd paragraph rejection, Applicant argues claims are definite when read in light of the specification. However, while the specification provides the characteristics of the anaerobically biodegradable layer, the claims as currently presented, in particular the independent claims, are indefinite because no structure is set forth. Additionally, while the claims are interpreted in light of the specification, particular limitations from the specification are not read in to the claims. Thus, the examples given of particular combinations of esters and amides and

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preferred polyesteramides, melting points, etc., can not be considered to adequately define the claimed invention, when the claims do not recite any of these elements at all.

With regard to the art rejection applicant argues that Timmermann does not anticipate the claims and that Timmermann teaches away from the claimed invention because Timmermann discloses the introduction of air in its examples and also because Timmermann teaches a biomass growth on the disclosed polymers in the amount of at least 30 mg/l within two weeks. However, Timmermann discloses a material which comprises the same materials as claimed in the instant claims in the same proportions. The fact that the Timmermann material may be aerobically degradable, i.e., biodegradable, does not mean that it would not also be anaerobically degradable. Since the materials of Timmermann and the claimed invention are the same, it is reasonable to assume that Timmermann would behave in the same way as the claimed invention and would possess the claimed properties. Applicant has not presented any reasons why Timmermann would not possess the claimed properties. Further, with regard to the limitation "resistant to mold growth", the particular resistance is not quantified. Therefore, even if the term "biomass" is accepted as meaning mold, Timmermann would still meet the limitation if the Timmermann material exhibited any resistance to any form of mold. Again, since Timmermann employs the same materials, it is reasonable to assume that Timmermann would exhibit the same properties in the laminate.

With regard to Lorcks, Applicant argues that Lorcks teaches away from the claimed invention with the inclusion of starch in the polymer mixture. However, the claims as presented

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do not exclude the presence of starch. Additionally, although Applicant asserts that the presence of the starch biopolymer would induce a biomass growth, (which applicant equates to mold), the claims do not recite that mold does not or can not grow on the laminate, but rather recite that the laminate is "resistant" to mold growth. Since the amount of resistance is not quantified, and since Lorcks employs the same materials as the instant claims, it is reasonable to presume that Lorcks' laminate would inherently possess at least some resistance to at least some kind of mold, which is all that is required by the claim.

With regard to the 103 rejections, Applicants arguments regarding Timmermann are addressed above. With regard to Warzelhan, Applicant argues that Warzelhan does not teach a laminate. However, Warzelhan is relied on for teaching that fillers can be incorporated into biodegradable polyesteramides, not for the particular structure of the laminate since that is taught by Timmermann.

Applicant's arguments with regard to Lorcks are addressed above. Additionally, it is noted that the claims do not preclude mold growth, but instead recite only that the material be "resistant" to mold growth.

With regard to the combination of Lorcks and Keyes, Keyes teaches that the same materials which are suitable for use in diapers can also be used to form tampons. The fact that Keyes does not disclose the other claimed limitations does not make the combination improper because Keyes and Lorcks are drawn to biodegradable materials. Lorcks does not teach forming

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the material into tampons. Keyes teaches that such materials can be formed into both diapers, which are taught by Lorcks, and tampons which are not. Therefore, the combination is proper.

With regard to the argument that the Lorcks and Timmermann references teach away from the claimed invention, it is assumed that by this Applicant is referring the limitation "resistant" to mold growth. As set forth above, both references meet this limitation since "resistant" does not equate to mold free and since all that the term "resistant" requires is that the materials offer any amount of resistance to the growth of any type of mold. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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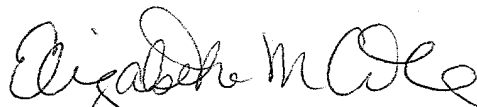
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c

September 2, 2003